

**THE PELAHATCHIE METEOR, WHICH PASSED OVER
CENTRAL MISSISSIPPI IN THE FORENOON OF OCTO-
BER 17, 1910.**

By FRANK MONTGOMERY, Observer, Meridian, Miss.

A meteor of unusual size and brilliance was seen in central Mississippi a few minutes after 9 o'clock in the morning on October 17, 1910. There was not a cloud in the sky, and the sun was shining brightly at the time. If it had occurred at night, there is no doubt that its gorgeous brilliance would have beggared all description. Probably a meteor has never been observed in Mississippi that was seen by more people or attracted such general attention. Many thousands witnessed it from places within a radius of 50 to 75 miles from Pelahatchie, Miss. No such phenomenon had ever before been seen by most of these people, and it struck terror to the hearts of many.

It was seen by a number of people at Meridian, which is 75 miles from the scene of the explosion. Reliable people who had the best view of it say that the meteor itself was visible several seconds, when suddenly there seemed to be an explosion, but the main mass appeared to go on in its course. The trail of smoke along its path was visible for nearly half an hour, and at the place where the explosion occurred for probably 15 minutes longer. This is possible, from the fact that at Meridian the wind was blowing from the northeast at the time with a velocity of only 5 miles an hour.

From answers to numerous letters of inquiry I have selected those from Mr. J. J. Wilson of Pelahatchie, Miss., and Rev. W. J. Dawson of Morton, Miss., upon which to base the following description:

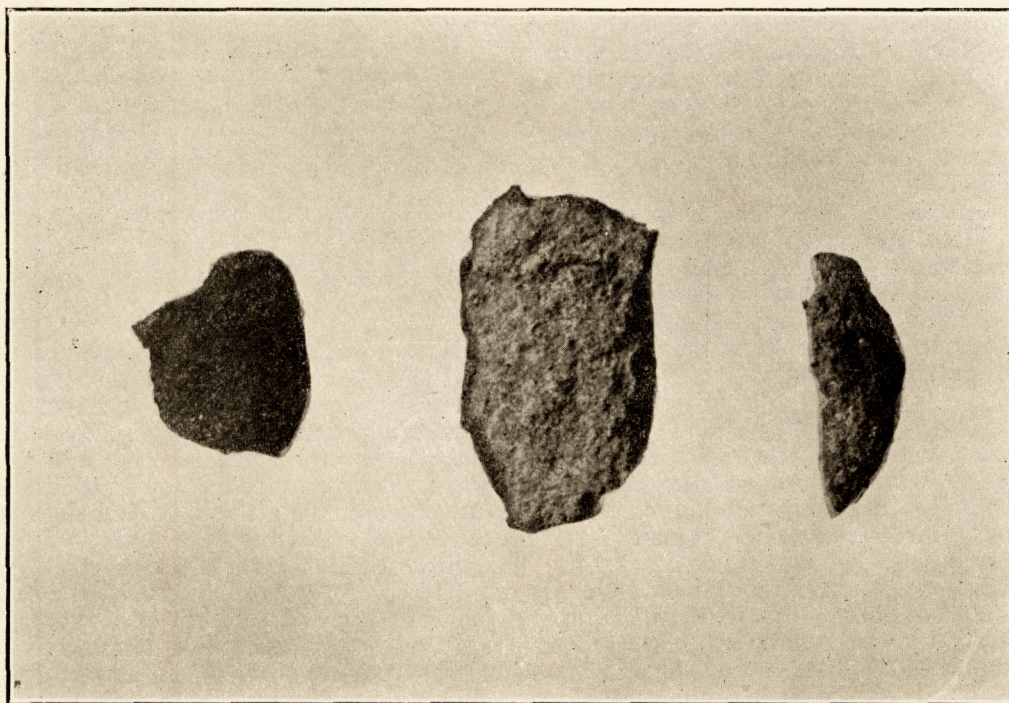
The meteor first appeared in the heavens a little north of west from Pelahatchie, and probably about 20° above the horizon, and traveled in an easterly direction with an inclination to the south, and vanished into space at an elevation of about 25° above the eastern horizon. Its general path seemed to be tangent to the earth, but the object appeared to make slight vertical curves, suggesting that when a meteor comes in contact with our

atmosphere it tends to undulate after the manner of a stone thrown along the surface of still water.¹ It moved across the heavens at a tremendous velocity and kept up a continuous bombardment of fragments for several miles on each side of its path. The meteor itself was visible only a few seconds, but the strange shooting and hissing sounds made by its flight and that of the fragments that broke from it could be heard for several minutes. In appearance it resembled a small compact cloud of very black smoke, merging outward into a thin whitish haze.

I have been unable to secure sufficiently accurate data for angular measurements from which to compute its elevation from the earth; but it appears that the meteor vanished into space some little time before any of the fragments reached the earth. The velocity of these fragments was so great that some were found buried 6 or 8 inches in the ground. All the fragments that have been found are small, ranging in weight from a few ounces to nearly 2 pounds. Some of them are fairly regular in outline. One piece that weighed 10 ounces was 3 inches long and 2 inches thick and nearly oval in shape. Their surfaces are fairly smooth and much blackened by heat, while the interior of all the specimens found is of a quite uniform silver-gray color. A portion of one fragment was sent to the University of Mississippi, and a qualitative chemical analysis reveals principally iron, silica, and calcium, with a trace of manganese.

Several very small pieces are in the possession of this office, three of which were selected for the accompanying photograph, which magnifies the specimens two diameters. The one to the left shows the smooth blackened exterior surface, while the middle one shows the bright interior, but fails to reveal the numerous glittering particles that are present in the specimen. The one to the right presents a section at right angles to the surface to show how thin a surface film was oxidized while passing through the air.

¹ Perhaps due to the irregular form of the meteor.—EDITOR.



Fragments of the meteor that passed over Pelahatchie, Miss., on October 17, 1910. The left-hand fragment shows the blackened exterior, the middle one the bright metallic interior, while the one to the right is a cross section to show the thinness of the blackened surface film.